Managing Your Recycling Data
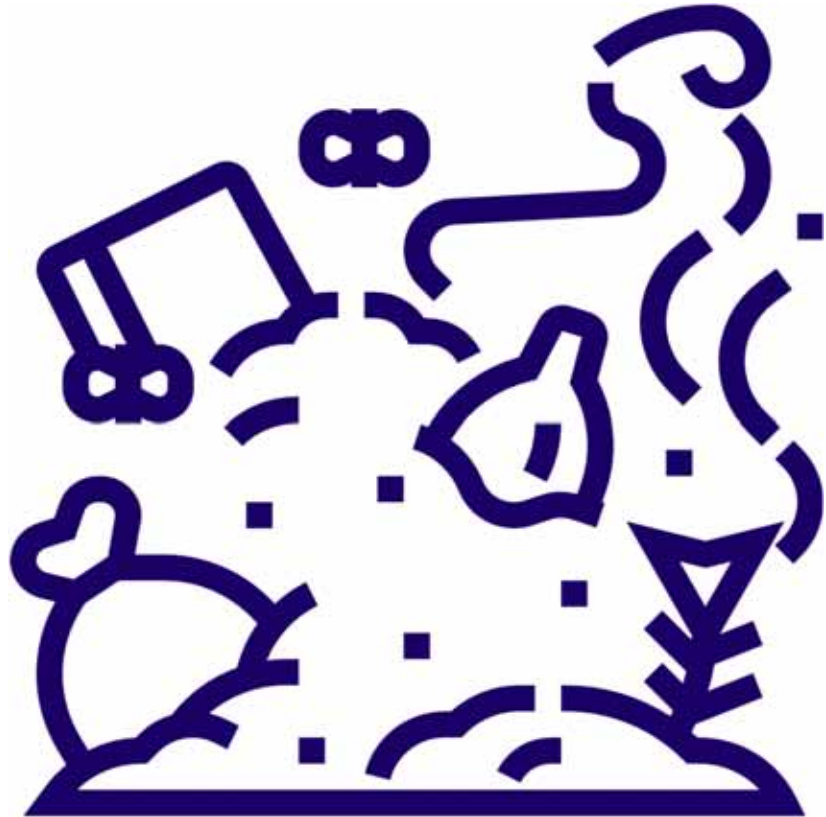
From the 3 R's to the 3 T's... Templates, Tips, and Tools

2023 PROP Annual Recycling & Organics Conference
The Wyndham Gettysburg
July 19, 2023 — 4:30pm to 5:30pm

Welcome!
Happy to have you here!

Session Instructor
Amy Mazzella di Bosco

- Greater Lebanon Refuse Authority
- Lebanon County Recycling Coordinator
- PROP Data Management Committee Chair

DATA MANAGEMENT

Collecting and analyzing data to present information in reports and grants in order to evaluate recycling programs and promote recycling

- Understand the importance of data collection
- Learn your role in the data collection process
- Become a cooperative partner in the process

2,30	0,78	2,05	3,65	125,81	3,11	2,93	0,38	5,60	0,38	1471,07	0,09	709,03	3,00	0,59	3,31
2,38	0,37	1,91	4,40	2323,24	0,09	3,51	0,87	8,41	0,95	914,66	0,06	1327,74	3,30	0,48	7,67
3,55	0,21	8,71	6,55	1594,12	0,76	2,65	0,87	6,75	0,28	85,12	0,09	1411,79	0,62	0,51	1,72
1,56	1,00	9,94	5,76	469,27	2,00	3,33	0,29	3,27	0,12	465,72	0,10	876,32	1,59	0,40	6,52
3,22	0,23	8,67											2,13	0,51	3,77
3,07	0,72	9,24											2,96	0,20	8,66
3,87	0,34	6,79											3,04	0,17	4,76
2,11	0,95	5,56											0,26	0,08	8,29
0,08	0,48	1,15											1,87	0,36	1,72
0,47	0,20	3,47											1,87	0,32	8,47
3,37	0,67	6,79											3,49	0,17	9,75
3,09	0,79	2,64											0,37	0,61	4,61
3,53	0,29	3,78											2,10	0,58	5,72
2,90	0,24	8,41											1,83	0,99	8,04
1,28	0,21	3,37											1,16	0,24	7,85
1,15	0,42	1,04											0,89	0,46	4,58
0,46	0,25	9,29											0,08	0,06	8,58
3,02	0,49	5,72											0,77	0,76	5,37
3,36	0,19	1,31											2,99	0,39	0,87
2,05	0,58	3,64											2,89	0,89	7,79
2,03	0,16	7,66											0,58	0,03	3,92
0,13	0,41	7,12											0,57	0,90	6,11
0,44	0,34	9,34											0,91	0,08	8,28
0,05	0,00	6,95											2,16	0,22	8,95
0,10	0,03	8,89											1,51	0,13	6,97
0,12	0,75	6,44											1,30	0,98	8,89
0,08	0,26	1,16											2,95	0,43	1,69
1,45	0,62	6,98											0,12	0,03	4,10
1,87	0,11	8,38											1,34	0,10	0,88
2,56	0,45	2,59											0,01	0,56	3,99
0,87	0,84	7,59											3,47	0,47	2,34
2,43	0,32	2,16											2,28	0,25	0,45
1,31	0,42	0,02											3,58	0,34	0,53
2,84	0,40	2,13											1,18	0,51	4,45
1,27	0,79	9,23											3,17	0,98	5,09
3,48	0,42	2,91											3,17	0,28	4,62
2,04	0,73	0,98	6,34	1942,23	3,22	0,44	0,15	3,33	0,38	1014,61	0,30	1369,92	0,42	0,18	2,39
2,10	0,23	2,64	1,10	401,34	1,71	4,00	0,01	6,93	0,96	972,43	0,58	374,00	3,91	0,16	2,39
2,45	0,17	9,59	12,72	1741,92	1,61	2,01	0,85	5,28	0,31	1301,69	0,92	296,95	3,18	0,01	4,60
0,36	0,58	3,94	4,44	1293,62	0,71	0,47	0,07	2,17	0,88	1206,34	0,90	1425,36	0,36	0,93	6,40

SPREADSHEETS.

How are you storing your data?

LEBANON COUNTY RECYCLING REPORT
FOR TONS OF RECYCLABLES COLLECTED FROM
JANUARY 1, 2023 TO MARCH 31, 2023
FOR THE TOWNSHIP OF NORTH LONDONDERRY

RECYCLABLES: (Convert all volumes to TONS)	CODE	RESIDENTIAL	R DROP-OFF	COMMERCIAL	C DROP-OFF
SINGLE STREAM (paper and plastics, glass, metals collected all together)	SS1	24.81		31.68	
COMMINGLED (plastics, glass, metal collected together, paper separate)	XXX				
PAPER:					
PAPER: CARDBOARD	C01				
PAPER: GABLED / ASEPTIC CARTONS (waxed / coated cardboard)	C03				
PAPER: MAGAZINES & CATALOGS	PA1				
PAPER: MIXED / OTHER (junk mail, paper bags, paperboard, etc.)	PA3				
PAPER: NEWSPRINT	PA2				
PAPER: OFFICE PAPER (all grades)	PA4				
PAPER: PHONE BOOKS	PA6				
DRUM FIBER	DR3				
METALS:					
ALUMINUM CANS	AA1				
STEEL / BIMETALLIC / TIN CANS	F02				
MIXED CANS	MX2				
ALUMINUM SCRAP	AA2				
FERROUS METALS	F01				
NON-FERROUS METALS	N01				
COPPER	N02				
BRASS	N03				
LEAD	N04				
STAINLESS STEEL	N05				
NICKEL	N10				
WIRE / CABLE	W01				
MIXED METALS (SCRAP METAL INCLUDES DRUM STEEL)	MM1				
WHITE GOODS: (Avgs-Freezers/Refrigs 250 lbs/ea - other appliances 150 lbs/ea)	F03				
GLASS:					
GLASS: BROWN	GL4				
GLASS: CLEAR	GL1				
GLASS: GREEN	GL3				
GLASS: MIXED	GL2				
GLASS: OTHER	GL6				
PLASTICS:					

EXCEL

Google
Sheets

EXAMPLES.

SPREADSHEET BY HAULER

Hauler/Company	Res Alum Cans	R-DO Alum Cans	Com Alum Cans	C-DO Alum Cans	Res Alum Scrap	R-DO Alum Scrap	Com Alum Scrap	C-DO Alum Scrap
Malamute Hauling								
January to March								
April to June								
July to September								
October to December								
Yearly Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Graybill Carting								
January to March								
April to June								
July to September								
October to December								
Yearly Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
XS Waste								
January to March								
April to June								
July to September								
October to December								
Yearly Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chambersburg Waste Paper Co								
January to March								
April to June								
July to September								
October to December								
Yearly Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Waste In Time								
January to March								
April to June								
July to September								
October to December								
Yearly Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

EXAMPLES.

SPREADSHEET BY MONTH
FOR RECYCLING CENTER

DATE	MATERIAL	POUNDS	TONS	TOTAL TONS	$/TON	REVENUE	TOTAL REVENUE
06-01-22	Milk/Water Jugs	220	0.11		$300.00	$33.00	
06-01-22	Metal Recovery	5700	2.54		$212.80	$541.50	
06-01-22	Brown Glass	4820	2.41		($30.00)	($72.30)	
06-02-22	Plastic Detergent Bottles	280	0.14		$300.00	$42.00	
06-02-22	Cardboard	1540	0.77		$50.00	$38.50	
06-03-22	Cardboard	1080	0.54		$50.00	$27.00	
06-06-22	Plastic Soda Bottles	660	0.33		$80.00	$26.40	
06-07-22	Cardboard	2240	1.12		$50.00	$56.00	
06-07-22	Milk/Water Jugs	220	0.11		$300.00	$33.00	
06-08-22	Plastic Detergent Bottles	340	0.17		$300.00	$51.00	
06-09-22	Steel Cans	2720	1.36		$0.00	$0.00	
06-09-22	Aluminum Cans	1060	0.53		$1,300.00	$689.00	
06-10-22	Cardboard	1960	0.98		$50.00	$49.00	
06-13-22	Plastic Soda Bottles	700	0.35		$80.00	$28.00	
06-13-22	Cardboard	1740	0.87		$50.00	$43.50	
06-13-22	Freon Appliances	4360	1.95		$212.80	$414.20	
06-14-22	Milk/Water Jugs	280	0.14		$300.00	$42.00	
06-15-22	Plastic Detergent Bottles	280	0.14		$300.00	$42.00	
06-15-22	Metal Recovery	7960	3.55		$212.80	$756.20	
06-16-22	Cardboard	1960	0.98		$50.00	$49.00	
06-20-22	Plastic Soda Bottles	640	0.32		$80.00	$25.60	
06-20-22	Cardboard	1780	0.89		$50.00	$44.50	
06-21-22	Milk/Water Jugs	160	0.08		$300.00	$24.00	
06-22-22	Plastic Detergent Bottles	300	0.15		$300.00	$45.00	
06-22-22	Newspaper/Phone Books	6260	3.13		$80.00	$250.40	
06-23-22	Cardboard	1660	0.83		$50.00	$41.50	
06-23-22	Metal Recovery	7060	3.15		$190.40	$600.10	
06-24-22	Magazines	19680	9.84		$50.00	$492.00	
06-27-22	Cardboard	2480	1.24		$50.00	$62.00	
06-28-22	Plastic Soda Bottles	720	0.36		$0.00	$0.00	
06-28-22	Milk/Water Jugs	240	0.12		$0.00	$0.00	
06-29-22	Cardboard	1480	0.74		$50.00	$37.00	
06-29-22	Office Paper	3700	1.85		$130.00	$240.50	
06-30-22	Clear Glass	6820	3.41		($10.00)	($34.10)	
				45.21			$4,717.50

Twp/Boro	Recycler Name	Batt	Cardboard	Office Paper	Mixed Paper	Electronics	Motor Oil	Mixed Plastic	Commingle	Other - Mixed Metals	Construction Wood Waste	Fluorescent Tubes	CHW	Total Tons Recycled
COUNTY	Central PA Shred-It			728.00										728.00
COUNTY	Iron Mountain			173.00										173.00
COUNTY	VERIZON	0.88			0.31	12.51	0.27	2.41	12.20	26.35	3.44	0.02	0.02	58.40
COUNTY	USPS		50.27		66.45			1.01						117.73
	TOTALS	0.88	50.27	901.00	66.76	12.51	0.27	3.42	12.20	26.35	3.44	0.02	0.02	**1,077.13**

EXAMPLES.

SPREADSHEET FOR COMMERCIAL RECYCLERS

EXAMPLES.

SPREADSHEET BY MUNICIPALITY

2022 Municipal Recycling Report

RECYCLABLE	Code	RES	RES D-Off	COMM	COMM D-Off
Lebanon County	38	———	———	———	———
Lebanon City	001	———	———	———	———
*NON-INDUSTRIAL COMMERCIAL ONLY		———	———	———	———
*Recyclable (Convert all volumes to tons, if necessary)		———	———	———	———
SINGLE STREAM (paper and plastics, glass, metals collected all together)	SS1	213.45		464.75	
COMMINGLED (plastics, glass, metal collected together, paper separate)	XXX	432.02		32.51	
PAPER: CARDBOARD	C01		27.02	1271.61	835
PAPER: GABLED/ASEPTIC CARTONS (waxed)	C03			2.1	
PAPER: MAGAZINES & CATALOGS	PA1				169
PAPER: MIXED / OTHER (junk mail, paper bags, paperboard, etc.)	PA3			2.45	91
PAPER: NEWSPRINT	PA2		12.69		
PAPER: OFFICE PAPER (all grades)	PA4		8.45	350.55	398
PAPER: PHONE BOOKS	PA6		0.31		5
DRUM FIBER	DR3				
ALUMINUM CANS	AA1		0.84		
STEEL / BIMETALLIC / TIN CANS	F02		1.58		
MIXED CANS	MX2				
ALUMINUM SCRAP	AA2			0.04	
FERROUS METALS	F01			61	
NON-FERROUS METALS	N01				
COPPER	N02			5.85	
BRASS	N03			0.13	
LEAD	N04				
STAINLESS STEEL	N05			0.01	48
NICKEL	N10				
WIRE/CABLE	W01				
MIXED METALS (SCRAP METAL INCLUDES DRUM STEEL)	MM1			6.8	
WHITE GOODS: (Avgs-Freezers/Refrigs 250 lbs/ea - other appliances 150	F03				
GLASS: BROWN	GL4				
GLASS: CLEAR	GL1		19.78		
GLASS: GREEN	GL3				
GLASS: MIXED	GL2				
GLASS: OTHER	GL6				
PLASTIC: PET (polyethylene terephthalate)	PL1		5.57		57
PLASTIC: HDPE (high density polyethylene)	PL2		2.8		61
PLASTIC: PVC (unplasticized & plasticized polyvinyl chloride)	PL3				
PLASTIC: LDPE (low density polyethylene)	PL4				
PLASTIC: PP (polypropylene)	PL5				
PLASTIC: PS (polystyrene)	PL6				
PLASTIC: MIXED / OTHER	PL7			0.9	162
PLASTIC: FILM	PL8			18.67	
PLASTIC: DRUM (high molecular weight HDPE)	DR1				
PLASTIC: DRUM (mixed bulky rigid)	DR4				
ASPHALT	ASP				
RUBBER TIRES	M01				
CONSTRUCTION & DEMOLITION	M02				
CLOTHING / TEXTILES	M03			642.95	
FURNITURE / FURNISHINGS	M04				
MATTRESSES	MT1				
MISCELLANOUS / OTHER CONSUMER ITEMS	MIS			229.45	
HOUSEHOLD HAZARDOUS WASTE	HHW				
ANTIFREEZE	O02				
BATTERIES (lead acid)	B01			104.26	
BATTERIES (other household)	B02				
E-WASTE (includes televisions)	CR1				
FLUORESCENT TUBES / CFLs	FL1				
USED OIL	OL2			7.92	
OIL FILTERS	OL3				
OTHER COMMERCIAL HW (hazardous waste - paints, varnishes, pesticide	CHW				
SOURCE SEPARATED FOOD	SSF			154.41	
WOOD WASTE	WW1			29.52	
YARD & LEAF WASTE (Leaves-1T=4 CY, Yard/Leaf 1T=3 CY; Grass: 1T	Y01	371.29	1944.09		
		1016.76	2023.13	3385.88	1824.00
					8249.77

EXAMPLES.

SPREADSHEET FOR AGGREGATE TOTALS

2022 Municipal Recycling Report

RECYCLABLE	Code	RES	RES D-Off	COMM	COMM D-Off
Lebanon County	38	———	———	———	———
GRAND TOTALS		———	———	———	———
*NON-INDUSTRIAL COMMERCIAL ONLY		———	———	———	———
*Recyclable (Convert all volumes to tons, if necessary)		———	———	———	———
SINGLE STREAM (paper and plastics; glass, metals collected all together)	SS1	2777.13	0.00	2892.33	0.00
COMMINGLED (plastics, glass, metal collected together, paper separate)	XXX	1175.67	67.26	276.74	0.00
PAPER: CARDBOARD	C01	1.44	432.79	18731.11	6584.00
PAPER: GABLED/ASEPTIC CARTONS (waxed)	C03	0.00	0.00	3.90	0.00
PAPER: MAGAZINES & CATALOGS	PA1	0.00	73.03	0.13	399.00
PAPER: MIXED / OTHER (junk mail, paper bags, paperboard, etc.)	PA3	0.00	170.50	238.63	266.00
PAPER: NEWSPRINT	PA2	0.00	58.75	0.24	529.00
PAPER: OFFICE PAPER (all grades)	PA4	0.00	39.71	1516.04	701.00
PAPER: PHONE BOOKS	PA6	0.00	0.31	0.30	5.00
DRUM FIBER	DR3	0.00	0.00	16.22	0.00
ALUMINUM CANS	AA1	0.00	57.79	4.51	65.14
STEEL / BIMETALLIC / TIN CANS	F02	0.00	13.04	19.35	0.00
MIXED CANS	MX2	0.00	0.00	2.26	0.00
ALUMINUM SCRAP	AA2	0.00	288.52	43.21	388.09
FERROUS METALS	F01	0.00	3878.64	1865.09	12531.52
NON-FERROUS METALS	N01	0.00	38.61	47.74	114.99
COPPER	N02	0.00	114.11	7.85	135.63
BRASS	N03	0.00	34.02	0.39	83.44
LEAD	N04	0.00	4.61	0.00	0.48
STAINLESS STEEL	N05	0.00	32.62	1.01	72.54
NICKEL	N10	0.00	0.00	0.00	0.00
WIRE/CABLE	W01	0.00	58.75	0.00	18.87
MIXED METALS (SCRAP METAL INCLUDES DRUM STEEL)	MM1	0.00	115.68	397.97	0.00
(lbs/ea)	F03	0.00	10.19	0.29	0.00
GLASS: BROWN	GL4	0.00	15.32	0.00	0.00
GLASS: CLEAR	GL1	0.00	48.92	0.00	0.00
GLASS: GREEN	GL3	0.00	8.06	0.00	0.00
GLASS: MIXED	GL2	0.00	0.00	1204.46	0.00
GLASS: OTHER	GL6	0.00	0.00	0.00	0.00
PLASTIC: PET (polyethylene terephthalate)	PL1	0.00	23.68	0.49	98.00
PLASTIC: HDPE (high density polyethylene)	PL2	0.00	14.85	36.02	61.00
PLASTIC: PVC (unplasticized & plasticized polyvinyl chloride)	PL3	0.00	0.00	3.67	0.00
PLASTIC: LDPE (low density polyethylene)	PL4	0.00	0.00	109.17	99.00
PLASTIC: PP (polypropylene)	PL5	0.00	0.00	10.27	0.00
PLASTIC: PS (polystyrene)	PL6	0.00	0.00	7.26	0.00
PLASTIC: MIXED / OTHER	PL7	0.00	0.00	503.41	281.00
PLASTIC: FILM	PL8	0.00	0.00	126.73	127.00
PLASTIC: DRUM (high molecular weight HDPE)	DR1	0.00	0.00	0.64	0.00
PLASTIC: DRUM (mixed bulky rigid)	DR4	0.00	0.00	20.57	0.00
ASPHALT	ASP	0.00	0.00	0.00	0.00
RUBBER TIRES	M01	0.00	10.07	1481.48	75.30
CONSTRUCTION & DEMOLITION	M02	0.00	0.00	0.00	0.00
CLOTHING / TEXTILES	M03	0.00	0.00	642.95	0.00
FURNITURE / FURNISHINGS	M04	0.00	0.00	0.00	0.00
MATTRESSES	MT1	0.00	0.00	0.00	0.00
MISCELLANOUS / OTHER CONSUMER ITEMS	MIS	0.00	0.00	271.33	0.00
HOUSEHOLD HAZARDOUS WASTE	HHW	19.80	0.00	6.06	0.00
ANTIFREEZE	O02	0.00	0.00	23.95	1.86
BATTERIES (lead acid)	B01	0.00	84.04	333.56	39.41
BATTERIES (other household)	B02	0.00	0.23	1.45	0.00
E-WASTE (includes televisions)	CR1	0.00	180.00	53.82	0.00
FLUORESCENT TUBES / CFLs	FL1	0.00	0.04	1.46	0.00
USED OIL	OL2	0.00	0.00	415.84	60.00
OIL FILTERS	OL3	0.00	0.00	39.54	0.00
(pesticides, etc.)	CHW	0.00	0.00	57.22	0.00
SOURCE SEPARATED FOOD	SSF	0.00	0.00	731.18	0.00
WOOD WASTE	WW1	48.00	41.78	4196.04	0.00
YARD & LEAF WASTE: (Leaves-1T=4 CY; Yard/Leaf: 1T=3 CY; Grass: 1T	Y01	7543.01	14099.58	99.31	0.00

90,763.84   11565.05   20016.50   36445.22   22737.07

Using Spreadsheets to store and calculate data makes it easier to get it in the format needed for annual reporting

Top Tips to Tackle

- What can data do for you?
- What are you collecting?
- What should you be collecting?
- How are you getting your data?
- Who are you collecting the data from?
- Who should you be collecting the data from?
- Are you analyzing your data to make sure you are not duplicating numbers?
- How can you effectively use the data?
- What picture does the data paint?
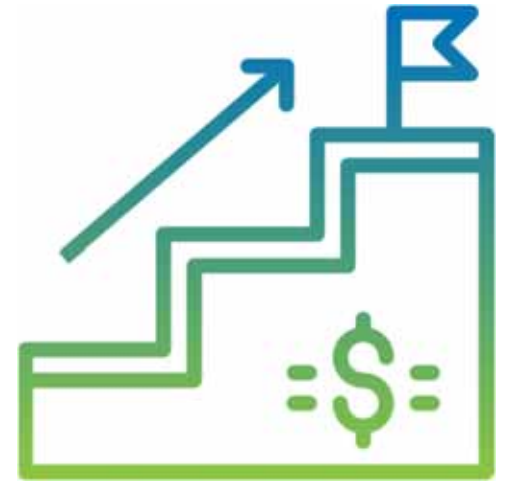
Tips On Target

- Can you Identify the Top 5 businesses/industries/institutions with the largest employee population in your municipality/county?
- Are they recycling?
- What are they recycling?

Telltale Tips

- When identifying data...It's the stuff that <u>really</u> <u>matters</u>...Focus on the big fish first
- Don't waste time hounding those you are only going to get a small amount of tonnage from
- What can you do to make it easier getting the data from your sources
  -Build bridges to establish hauler and business relationships
  -Hauler Meetings
  -Connect with your businesses (i.e., Chamber of Commerce Events)
- Municipalities and counties depend on businesses and haulers for the data
- You catch more flies with honey than with vinegar ---being nice gets you better results

Telltale Tips Too

- Commercial businesses and haulers contribute significant amounts of data
- Municipalities/Counties need to work with and help businesses and haulers
- Tell them how they are impacting your community
- Recognize your businesses and haulers in a newsletter, on your website, in a brochure or on your social media platform and thank them for their efforts
- Welcome new businesses and haulers---Build relationships
- Hold an annual recognition event for them

Tips in Translation

- What to do with data beyond the check
- Share the numbers
- Share your success
- What's the impact of your program...Use the data to put into terms the impact recycling has on your community
- What are the avoided disposal costs?

- Don't just report the numbers, share them in such a way to strengthen and stimulate interest in your message
- Make a memorable statement on the efforts of your community
- Make your residents and businesses want to recycle more

Who's in Data Management's Toolbox?

- Residents
- Businesses/Industries/Institutions
- Haulers
- Processors
- End-Users
- Brokers
- Municipal Recycling Coordinators
- County Recycling Coordinators
- Department of Environmental Protection (DEP)
- Environmental Protection Agency (EPA)

Use Your Tools

Coordinator's Tool Kit on the PROP Website…

Pennsylvania DEP Website has a lot of great Tools

Department of Environmental Protection

Recycling in Pennsylvania

NEW -- Federal Register Notice: Solid Waste Infrastructure for Recycling Program: Request for Information ⬀ (6/9/22)

The Department is pleased to share the final report and underlying data of the 2021 Waste Composition Study. Please direct any questions to ra-eprecyclepa@pa.gov.

Statewide recycling in Pennsylvania began in 1988 with the Municipal Waste Planning Recycling and Waste Reduction Act (Act 101) that requires larger municipalities to recycle. The Act established a $2-per-ton fee on all waste disposed at municipal waste landfills and waste-to-energy facilities established grants for local collection programs, public education, materials processing and composting facilities, equipment and technical training. Below are a few other statutes and programs relevant to the business community:

The Small Business and Household Pollution Prevention Program Act, Act 190 of 1996, was established to assistance small businesses and the public in pollution prevention and the proper management of solid and hazardous wastes generated in households and small businesses. For more information on how Act 190 could affect your business, please see the PA General Assembly's legislative text.

The Covered Device Recycling Act (CDRA), Act 108 of 2010, established several requirements for individuals and entities involved throughout the life cycle of certain electronic devices including desktop and laptop computers, tablets, televisions, and more. For a more detailed description of CDRA requirements for manufacturers, retailers, landfills, haulers, and other businesses, please review the DEP's CDRA General Overview.

The Food Infrastructure Recovery Grant (FRIG) program was developed in accordance with Section 301 of Act 101. The intent of this program is to reduce, to the greatest extent practicable, the amount of fresh and processed foodstuffs

- Benefits
- Commercial Resources
- Composting
- Electronics Recycling
- Municipal Resources
- Public Resources
- Household Hazardous Waste Reports
- Recycling Statutes and Regulations
- Statewide Recycling Data
- Fact Sheets and Publications

EPA's Website has some great tools!

Recycling in the United States

Recycling is the process of collecting and processing materials that would otherwise be thrown away as trash and turning them into new products. Recycling can benefit your community, the economy, and the environment. Products should only be recycled if they cannot be reduced or reused. EPA promotes the waste management hierarchy, which ranks various waste management strategies from most to least environmentally preferred. The hierarchy prioritizes source reduction and the reuse of waste materials over recycling.

On this page:

- Benefits of Recycling
- Recycling System Overview
- Challenges to Recycling System
- What is Being Done?

iWARM Widget

EPA used data from the iWARM model to create the Save Energy by Recycling web widget. This simplified, interactive widget allows you to choose a recyclable (aluminum can, glass bottle, plastic bottle, weekly magazine and a plastic grocery bag) and then choose an appliance (air conditioner, hair dryer, laptop computer and 60W equivalent compact fluorescent light bulb or CFL) to find out how long that appliance can be powered for by recycling the material chosen.

Save Energy by Recycling web widget

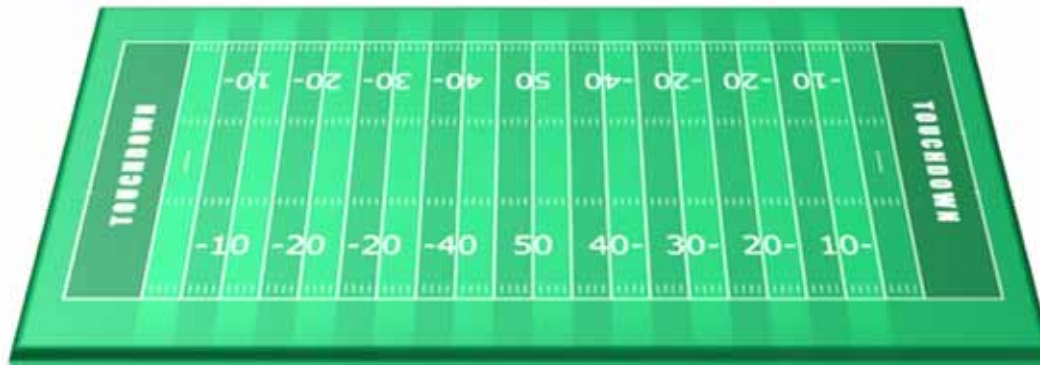Recycling 24 **P**lastic Bottles saves enough energy to power a laptop for 60 hours

Recycling 12 **Aluminum Cans** saves enough energy to power a 60W CFL lightbulb for 239 hours

Use Your Data to Help Justify and Enhance Your Program

- 19 million pounds of recyclables will fill a football field 45 feet high

19 million pounds = 9500 tons

https://www.orlandosentinel.com/1991/11/03/1991-11-03/_recycling-game-recyclable-goods-recycling-program

# Use Your Data to Help Justify and Enhance Your Program

- Use the numbers to personalize it to your county/municipality to send out a memorable visual of the impact of recycling on your community.

Example

9.5 million pounds of recyclables fill a football field 22.5 feet high
(9.5 million pounds = 4750 tons)

In 2022, ABC Township, XYZ County recycled 2500 tons.

$2500 = ?$
$4750 = 22.5$
$? \approx 12$
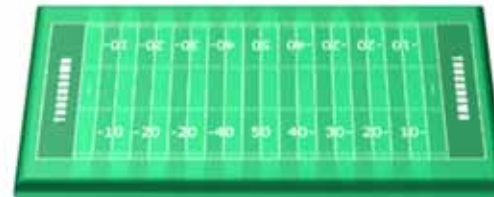
2500 tons of recyclables will fill a football field about 12 feet high.